

REMARKS

In the present Amendment, claims 19, 21, 23, 25, 27, 29, 31, 33, and 35 are cancelled. Thus, upon entry of this Amendment, claims 18, 20, 22, 24, 26, 28, 30, 32, and 34 are pending, of which claims 18 and 34 are independent.

Allowable Subject Matter

Applicants thank the Examiner for noting that claims 18 and 20-34 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112.

Claim Rejections – 35 U.S.C. § 112, first paragraph

The Office Action rejects claims 18-35 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

Specifically the Office asserts that one of ordinary skill in the art would not know what “old ASTM” comprises and thus would not be enabled to make the current invention. The Office Action refers to two different “old ASTM” – the “old ASTM F121-1979” test used by HOURAI (U.S. Patent No. 7,364,618) and the “old ASTM 1976” test used by ASAYAMA (U.S. Patent No. 6,709,957).

In response to the rejections of claims 18-35 under 35 U.S.C. § 112, first paragraph, Applicants note that the term “old ASTM” is known to one having ordinary skill in the art. In this regard, Applicants enclose herewith an excerpt from the following textbook:

W.R. RUNYAN and T.J. Schaffner, "Semiconductor Measurements and Instrumentation", New York: McGraw-Hill, 2nd edition, 1998, pp 99-100.

On page 100, Table 3.5 of this document provides a summary of conversion factors and impurities used by different ASTM tests. The document indicates that the term "old ASTM" would be known to one having ordinary skill in the art. Further, the document establishes that either test disclosed by HOURAI or ASAYAMA would have used the same factor as old ASTM F121-1979 and old ASTM 1976 are standards which are both incorporated into the general term of art, "old ASTM" for measuring interstitial oxygen concentration within silicon. Applicants submit that one of ordinary skill in the art would have also readily understood this relationship.

Applicants submit that choosing the proper factor correlating with "old ASTM" is common technical knowledge to one of ordinary skill in the art. One of ordinary skill would understand that the specification enables the use of a variety of ASTM testing methods while limiting the use of such testing methods for measuring interstitial oxygen concentration to tests with the commonly known conversion factor.

Applicants further submit that this document, along with the disclosure of the Specification, would have enabled one of ordinary skill in the art to determine the appropriate factor to use when measuring/calculating the interstitial oxygen concentration. Accordingly, Applicants respectfully submit that one having ordinary skill in the art would be enabled to practice Applicants' claimed subject matter, whereby this ground of rejection should be withdrawn.

A PTO -1449 form listing the above named document is enclosed with this response. To the extent that this document is being submitted as evidence in support of a statement in response to remarks by an Official Action, no additional fee is deemed necessary. However, authorization is hereby provided to charge any fees to Deposit Account No. 19-0089.

Claim Rejections – 35 U.S.C. § 103(a)

The Office Action rejects claims 19, 23 and 35 as unpatentable over TAMATSUKA (U.S. Patent No. 6,224,668) in view of TAKASE (U.S. Patent No. 7,397,110).

Claims 19, 23, and 35, as well as all claims depending from these claims are presently cancelled.

Further to the pending claims, 18, 20, 22, 24, 26, 28, 30, 32, and 34, Applicants submit that TAKASE describes only an oxygen concentration of 14×10^{17} and does not disclose a nitrogen concentration with respect to a substrate. The Office Action relies on TAMATSUKA for disclosure of a concentration of nitrogen. However, TAMATSUKA discloses a method for manufacturing a thin film SOI substrate and describes that the wafer at the device fabrication side has an oxygen concentration after heating equal to or lower than 12×10^{17} . TAMATSUKA further discloses that this concentration of oxygen is to suppress the oxygen concentration.

Applicants submit that the disclosures of TAKASE and TAMATSUKA are incompatible and for at least the foregoing reasons, Applicants further submit that one of ordinary skill in the art would not be guided to make a combination of TAKASE and TAMATSUKA which would render the present claims unpatentable.

Accordingly, Applicant submit that the pending claims are not rendered obvious by the cited documents and would sufficiently enable one of ordinary skill in the art to practice the

claimed subject matter. Applicants respectfully request withdrawal of the rejections and allowance of the present claims.

CONCLUSION

For all the above reasons, it is respectfully submitted that all pending claims are patentably distinct over the documents employed in the rejection of record. Applicants request reconsideration and withdrawal of the rejections of record. Allowance of the application with an early mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

If there should be any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,
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November 17, 2008
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